



Patent
Attorney's Docket No. 022701-977

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)	
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Albert FELIX et al.)	Group Art Unit: 1625
)	
Application No.: 10/018,814)	Examiner: T. Oh
)	
Filed: April 22, 2002)	Confirmation No.: 2586
)	
For: METHOD OF MAKING ADIPIC)	
ACID)	

SECOND REPLY

Commissioner for Patents
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Sir:

In response to the Office Action mailed June 4, 2003, Applicants submit the following remarks.

REMARKS

Entry of the foregoing, and re-examination and reconsideration of the subject application, in view of the remarks which follow, are respectfully requested.

Claims 1-10 are pending in the application. Each of these claims is under consideration.

In the Office Action, claims 1-10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Anderson et al* (U.S. Patent No. 5,471,001). For the reasons set forth below, this rejection should be withdrawn.

There is a fundamental difference between the present invention and *Anderson et al*. *Anderson et al* is directed to the crystallization of adipic acid. The smooth surface of the crystals in *Anderson et al* is obtained directly during crystal growth. In stark contrast to *Anderson et al*, the present invention is directed to treating already-grown adipic acid crystals, without dissolving them, to smooth their surface. There is nothing in *Anderson et al* to suggest that a crystal having a rough surface could be modified to have a smooth surface without dissolving the crystal.

Applicants note the assertion in the Office Action that "it would have been obvious to the skilled artisan in the art to have applied the low intensity agitation to the adipic crystals in the crystallizer for the purpose of . . . smoothing the surface of the liquid crystals." But this assertion is flawed because there is nothing in *Anderson et al* to lead persons skilled in the art to believe that the low-intensity agitation could smooth the surface of already-formed, rough-surfaced crystals. First, *Anderson et al* teaches that the smooth

surface is formed during crystallization. See col. 4, lines 1-6 ("It may be desirable under certain circumstances to . . . lower the energy level to low intensity ultrasonic agitation as the crystallization is continuing to induce more perfect crystal growth."). Second, *Anderson et al* teaches that the low-intensity agitation usually does not modify the structure of well-formed crystals. See col. 3, lines 64-65 ("The low intensity ultrasonic agitation does not usually fragment well formed crystals."). Third, and most importantly, *Anderson et al* teaches that the low-intensity agitation prevents rough surfaces from forming. See col. 3, lines 64-66 ("The low intensity ultrasonic agitation . . . displaces crystal fragments that have begun to grow on well formed crystals."). Taken together, these three teachings suggest that low-intensity agitation can promote the growth or formation of smooth-surface crystals.

Anderson et al fails to suggest, however, what effect, if any, the low-intensity agitation would have on already-formed, rough-surfaced crystals. Thus, based on the teachings of *Anderson et al*, it cannot be fairly concluded that persons skilled in the art would have found it obvious to apply low-intensity agitation to already-formed, rough-surfaced crystals to smooth their surface. There is no motivation to do it. And there is no reasonable expectation of success.

Accordingly, for at least all of the reasons set forth above, *Anderson et al* fails to disclose or suggest each of the features of the presently claimed invention. Therefore, there is no *prima facie* case of obviousness, and the rejection under 35 U.S.C. § 103(a) should be withdrawn.


From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such action is earnestly solicited.

If the Examiner has any questions concerning this Reply, or the application in general, the Examiner is invited to telephone the undersigned at the number listed below.

Respectfully submitted,

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Date: November 4, 2003

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